

CLAIMS

I Claim:

1. A method, comprising:
 - a) providing; i) target cells, ii) a library comprising a plurality of ligands, wherein at least one ligand is capable of binding so as to cause a response from at least a subset of said target cells, and iii) an indicator;
 - b) contacting the target cells with said ligands of said library to create treated target cells, under conditions such that a subset of said treated target cells is activated;
 - c) exposing said treated target cells to said indicator, under conditions such that the at least one activated target cell is detected to create a detected activated target cell;
 - d) collecting said detected activated target cell to create a collected activated target cell; and
 - e) recovering said ligand from said collected activated target cell.
2. The method of Claim 1, wherein said library is a phage display library.
3. The method of Claim 1, wherein said target cell is a cancer cell.
4. The target cell of Claim 3, wherein said cancer cell is an acute lymphoblastic leukemia cell.
5. The acute lymphoblastic leukemia cell of Claim 4, wherein said cell is selected from the group consisting of a JURKAT cell, a MOLT-4 cell, a TALL-104 cell and a patient ALL cell.
6. The method of Claim 1, wherein said cellular response comprises a response selected from the group consisting of apoptosis, proliferation, differentiation, adhesion, migration, cytokine secretion, and cessation of such said processes.
7. The method of Claim 1, wherein said cellular response comprises a response selected from the group consisting of phosphorylation, dephosphorylation, calcium flux, target molecule cleavage, protein-protein interaction, protein-nucleic acid interaction, nucleic acid-nucleic acid interaction, and production of detectable fluorescence.

8. The method of Claim 1, wherein said indicator comprises fluorescent-labeled Annexin V.
9. A method, comprising:
 - a) providing; i) a library comprising a ligand capable of binding to at least one activated target cell, ii) an indicator, and, iv) an isolation means;
 - b) contacting the target cells with the library, under conditions suitable to affect binding of the ligand to the at least one activated target cell;
 - c) exposing the target cells having been contacted with the library to the indicator, under conditions such that the at least one activated target cell is detected;
 - d) collecting the at least one activated target cell having been detected with the indicator by use of the isolation means, and;
 - e) recovering the ligand from the at least one activated target cell having been collected by use of the isolation means.
10. The method of Claim 9, wherein said library is a phage display library.
11. The method of Claim 9, wherein said target cell is a cancer cell.
12. The target cell of Claim 11, wherein said cancer cell is an acute lymphoblastic leukemia cell.
13. The acute lymphoblastic leukemia cell of Claim 12, wherein said cell is selected from the group consisting of a JURKAT cell, a MOLT-4 cell, a TALL-104 cell and a patient ALL cell.
14. The method of Claim 9, wherein said cellular response comprises a response selected from the group consisting of apoptosis, proliferation, differentiation, adhesion, migration, cytokine secretion, and cessation of such said processes.
15. The method of Claim 9, wherein said cellular response comprises a response selected from the group consisting of phosphorylation, dephosphorylation, calcium flux, target molecule cleavage, protein-protein interaction, protein-nucleic acid interaction, nucleic acid-nucleic acid interaction, and production of detectable fluorescence.
16. The method of Claim 9, wherein said indicator comprises fluorescent-labeled Annexin V.